

**BUILDING 9 AREA SITE-SPECIFIC ADDENDUM TO THE
PRESIDIO TRUST LAND USE CONTROL MASTER REFERENCE
REPORT**

PRESIDIO OF SAN FRANCISCO, CALIFORNIA

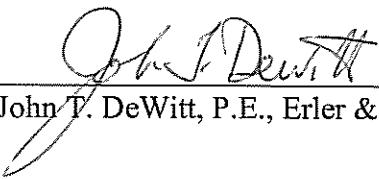
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Figure 1: Building 9 Land Use Control Area

Table 1: Building 9 Land Use Controls

1. INTRODUCTION

The California Environmental Protection Agency, Department of Toxic Substances Control (“DTSC”) requires sites that do not fully meet the most stringent Presidio-specific human health cleanup levels (i.e., residential cleanup levels), or if residual chemicals are left in place such that a cover is required, to have land use controls to inform and protect future users. This Site-Specific Addendum has been prepared for the Building 9 Area as an addendum to the Presidio Trust Land Use Control Master Reference Report (“LUCMRR”) because certain areas within the Building 9 Area do not meet Presidio-specific residential or recreational cleanup levels for chemical concentrations in soil. The Presidio-specific residential and recreational cleanup levels are presented in the *Presidio-wide Cleanup Level Document* (EKI, 2002). Land use plans, which govern future use of the Presidio, designate the Building 9 Area for residential human land use (NPS, 1994; Presidio Trust, 2002; EKI, 2002). This Site-Specific Addendum for the Building 9 Area identifies the land use control (“LUC”) area, the chemicals of concern (“COCs”) that exceed residential cleanup levels, and the specific land use restrictions that apply.

2. BUILDINGS AND AREAS INCLUDED IN THE LAND USE CONTROL

The specific area addressed in this addendum includes a portion of the sidewalk near the south corner of Building 9. Figure 1 shows the location of Building 9 and the LUC area.

3. REMEDIATION SUMMARY AND REMAINING CHEMICALS OF CONCERN

This section describes the site history and remedial actions implemented at the Building 9 Area and identifies the remaining COCs.

3.1 Site History

Building 9 is one of 13 similar buildings (Buildings 4-16) in the Main Post area located along the parade ground in the central portion of the Presidio. The site is bounded by Mesa Street to the northwest and Funston Avenue to the southeast. The Army constructed Building 9 in the 1870s for use as officers’ quarters, which was its use until the 1990s.

Lead-based paint (“LBP”) appears to have historically been applied to the surface of Building 9. The U.S. EPA has identified LBP as a highly toxic metal, and the federal government has banned the use of LBP for painting homes since 1978 (U.S. EPA, 2005). According to the *Presidio-wide Cleanup Level Document* (EKI, 2002), the applicable cleanup level for lead in soil in residential land use areas is 400 mg/kg, with a maximum average concentration of less than 370 mg/kg.

In 1999, the Presidio Trust (“Trust”) retained Hygienetics Environmental Services to conduct lead soil sampling at the drip line (approximately 3 feet from the building) around selected buildings, including Building 9, and analyze the samples for total lead. All eight surface soil samples (0 to 3 inches below ground surface (“bgs”)) collected by Hygienetics exceeded the residential cleanup level of 400 mg/kg, but eight soil samples from 6 to 12 inches bgs did not exceed the residential cleanup level (Hygienetics, 1999).

In June 2002, Engineering/Remediation Resource Group, Inc. (“ERRG”) excavated lead-impacted soil around Building 9. Ninyo & Moore collected confirmation samples, which were analyzed for total lead. ERRG conducted additional excavation in areas where the lead concentration in soil exceeded 400 mg/kg (Ninyo & Moore, 2002). Five rounds of excavation and sampling were conducted at Building 9 in June 2002.

3.2 Residual Chemicals Above Residential Cleanup Levels

According to the *Presidio-wide Cleanup Level Document* (EKI, 2002), the residential cleanup level for lead is 400 mg/kg. After five rounds of excavation and confirmation soil sampling performed by ERRG and Ninyo & Moore, all confirmation soil samples met the lead cleanup level except for sample 9SS18(0.5). The lead concentration in this sidewall sample against the sidewalk was 680 mg/kg. As shown on Figure 1, a confirmation soil sample west along the sidewalk was below the cleanup level. As the sidewalk was relatively new, the Trust assumes the elevated lead concentration may extend beneath the sidewalk, which was not removed as part of the remedial actions.

The full extent of any remaining lead-impacted soil is not known, but appears to be bounded by the excavation extent to the north, the drip line of the building to the east, the soil sample with results below the cleanup level to the west, and the southern sidewalk edge. The section of the sidewalk that covers what may be elevated concentrations of lead is the land use control described herein.

4. BUILDING 9 AREA SITE-SPECIFIC LAND USE RESTRICTIONS

Because residual lead concentrations in this limited area are greater than the residential cleanup level of 400 mg/kg, general and site-specific land use restrictions apply to the Building 9 Area. The general restrictions are listed in Section 3.1 and 3.2 of the LUCMRR and are incorporated by reference. The coordinates for several angle points along the perimeter of the LUC area field located by the Trust are provided in Table 1. The information in Table 1, including the LUCs, will be included in the Trust's geographic information system ("GIS") for reference by potential site users. The site-specific land use restrictions for the Building 9 Area are described below.

- Soil disturbance activities must be performed according to a site-specific health and safety plan ("H&S Plan") that is consistent with applicable health and safety standards, such as 29 CFR 1910.120. Workers in the LUC area shall follow the H&S Plan, must have the appropriate level of health and safety training and must use the appropriate level of personal protective equipment, as specified in the relevant H&S Plan.
- Soil excavated from the LUC area shall be sampled and analyzed for lead before such soil may be reused at the Presidio or disposed appropriately offsite. Soil can be reused on-site only if lead concentrations in the excavated soil are less than the cleanup levels applicable to the receiving site (per the Cleanup Level Document) and hazardous waste criteria (California Code of Regulations, Title 22, Section 66261).
- The LUC area must remain covered with buildings, pavement, or another barrier in landscaped areas. The cover must be maintained for the entire LUC area unless, for a specific area, soil sampling shows that the representative concentrations of chemicals of concern do not exceed Presidio residential cleanup levels. Confirmation soil sampling to prove that the cover alternative is not warranted shall be no less than one sample every 25 linear feet (for sidewall sampling) and 625 square feet (for bottom sampling), with a minimum of 4 sidewall samples and one bottom sample.

5. REFERENCES

Department of the Interior, National Park Service, 1994. *Creating a Park for the 21st Century, from Military Post to National Park – Final General Management Plan Amendment. Presidio of San Francisco, Golden Gate National Recreation Area, California.* July 1994.

Erler & Kalinowski, Inc. ("EKI"), 2002. *Development of Presidio-wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water, Presidio of San Francisco, California*. October 2002.

U.S. EPA Webpage, *Lead in Paint, Dust and Soil*, <http://www.epa.gov/lead/index.html>, document accessed 4/27/05.

Hygienetics Environmental Services, 1999. *Development Summary Report for Funston Avenue, Pre-Design Soil Sampling, The Presidio Trust, San Francisco, California*. August 1999.

Ninyo & Moore, 2002. *Lead-Based Paint in Soils Sampling and Remediation Summary Report, Buildings 9 and 10: Funston Avenue, The Presidio Trust, San Francisco, California*. November 2002.

Presidio Trust, 2002. *Presidio Trust Management Plan, Land Use Policies for Area B of the Presidio of San Francisco*. May 2002.

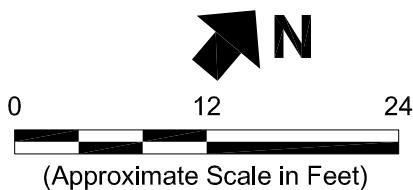
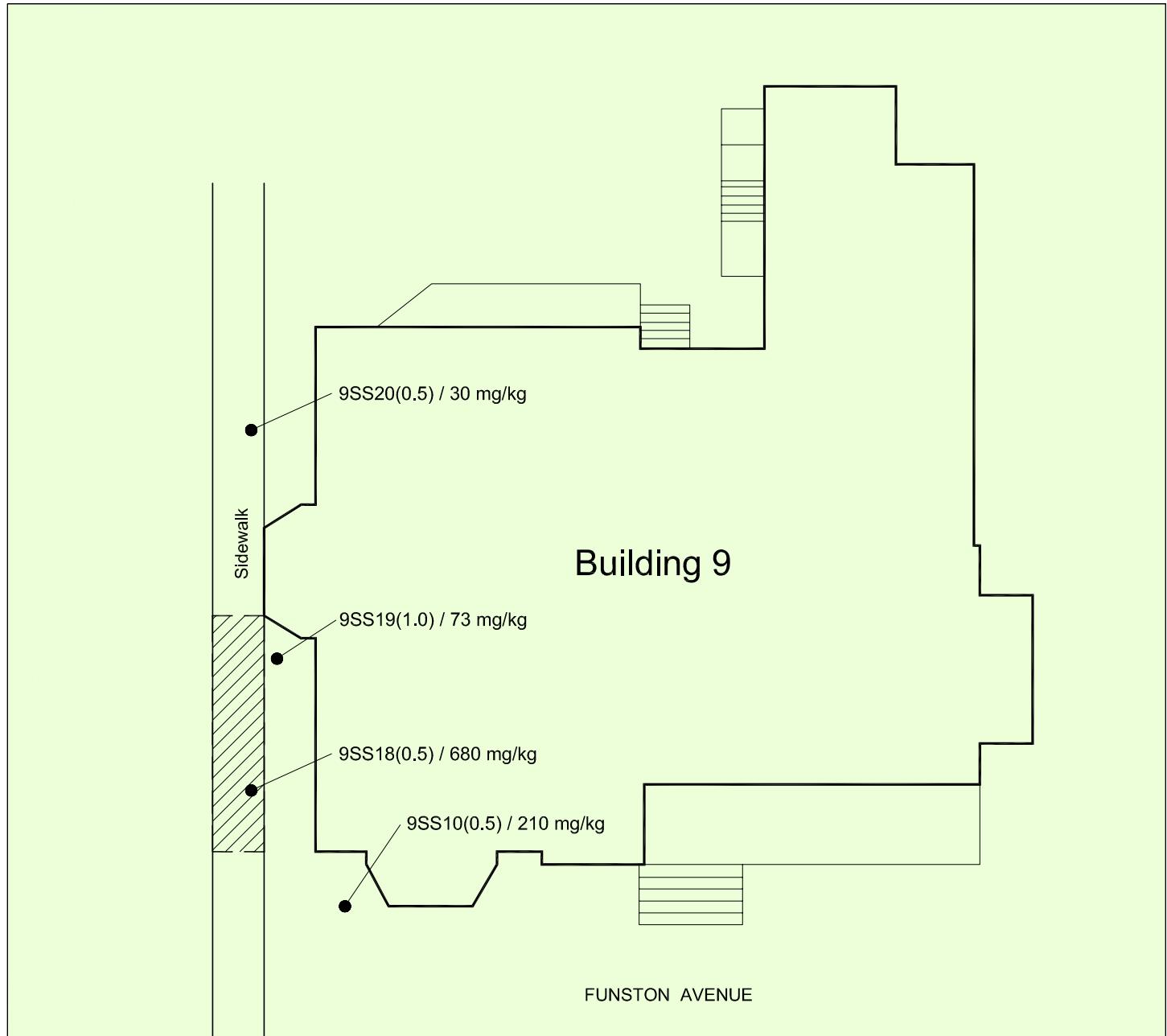
TABLE 1
BUILDING 9 AREA LAND USE CONTROLS

Presidio of San Francisco, California

Site Name	Land Use Controls	Regulatory Requirement for LUC?	Coordinates of 4 Points (a)		LUCMRR Addendum Information		
			Name	Date	File Name		
Building 9 Area	<p>(Valid Values)</p> <ul style="list-style-type: none"> ● Health and Safety Requirements ● Soil Management Requirements ● Surface Cover Restrictions 	<p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>A Northing Easting</p> <p>B Northing Easting</p> <p>C Northing Easting</p> <p>D Northing Easting</p>	Bldg 9 Area LUC	8/11/2006	Bldg 9 LUC.pdf	

Notes:

(a) Provide field surveyed coordinates in Northing East UTM Meter Zone 10 North coordinates.

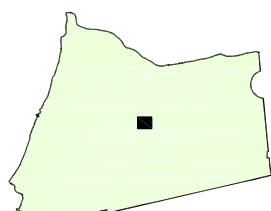


LEGEND

- 9SS19(1.0) / 73 mg/kg — Sample Location (Depth) / Lead Concentrations
- LBP LUC Area

Notes:

1. All locations are approximate.
2. Basemap was provided by Presidio Trust.
3. "LBP" = Lead Based Paint
4. Only selected sample locations are shown.



Key Map

Erler & Kalinowski, Inc.

Building 9
Land Use Control Area



Presidio Trust
San Francisco, CA
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EKI A000003.14

Figure 1